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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,072	03/03/2004	Hideyuki Kakinuma	4296-171 US	4211

7590 01/22/2008
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EXAMINER

DESAI, ANISH P

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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01/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/792,072	KAKINUMA ET AL.	
	Examiner	Art Unit	
	ANISH DESAI	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 10/31/07 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.
2. Claims 1-12 are pending. Claim 12 is withdrawn from consideration.
3. The 35 USC Section 103 rejection based on Bohm et al. (US 2003/0008137A1) in view of Tomoaki et al. (JP 2000-226561) are withdrawn, because the use of hotmelt adhesive of Tomoaki for the pressure sensitive adhesive of Bohm would render Bohm's invention inoperable for its intended use (i.e. ability of removing the adhesive tape of Bohm from painted surface of car without residue or delamination). However, upon further consideration, a 35 USC Section 103(a) rejection is made based on Holbrook et al. (US 5,858,159) in view of Tomoaki et al. (JP 2000-226561).
4. A new 35 USC Section 112-second paragraph rejections are made to claims 1-12.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 8, this claim is directed to a pre-applied outer layer material and the recitation of "A pre-applied outer layer material for automotive interior trim" is interpreted as the automotive interior trim is not a structural part of the pre-applied outer layer material. This claim further recites "wherein the back surface of said automotive trim has applied thereto a hotmelt...after being heated.", this recitation of applying hotmelt to the back surface of the automotive trim creates ambiguity in claim interpretation because the automotive trim panel is not a part of the claimed outer layer material. For the purpose of the Examiner, claim 8 is interpreted as the hot-melt is applied to the back surface of an outer layer material.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-7, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holbrook et al. (US 5,858,159) in view of Tomoaki et al. (JP 2000-226561) (English translation previously provided by the Examiner).

Holbrook discloses a method for manufacturing automotive seat assemblies using fabric (pre-applied outer layer material or surface layer or fibrous material) with pre-bonded adhesives (abstract). The fabric with the adhesive of is cut into pieces, which may be joined with other pieces to form a trim cover assembly. Heat is then applied to activate the adhesive and attach the trim cover assembly to a cushion pad to manufacture a complete automotive seat assembly (abstract).

With respect to claims 1 and 8 Holbrook is silent with respect to teaching the hot-melt having (A) an amorphous poly-alpha-olefin (APAO) having a melting viscosity in the range of 500-100,000 mPa*s/190°C, (B) a tackifier resin having a softening point of not lower than 110°C, (C) a polypropylene (PP) wax having a melting point of not lower than 120°C, and weight ratio of A/C in the range of 100/50 to 100/100 (i.e. 2 to 1) (claims 1 and 8) and weight ratio of A/B in the range of 100/10 to 100/100 (i.e. 10 to 1) (claims 4 and 8). However, Tomoaki discloses a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance,

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and short open time (page 9). The hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer, 5-44 wt% of a crystalline polypropylene wax with a softening point of 120°C or higher, and 1-20 wt% of tackifying resin (page 2). The amorphous polyolefin of Tomoaki has a viscosity of 1,500 to 50,000 cps at 190°C, which converts to 1,500 to 50,000 mPa*s (1 cp = 1 mPa*s). With respect to the limitation of tackifier resin having softening point of not lower than 110°C, it is noted that Tomoaki discloses the same types of tackifier resins (e.g. terpene, modified terpene, hydrogenated resins such as hydrogenated terpene) (page 16-17) as disclosed by the applicant on pages 11-12 of the specification. Therefore, it is reasonable to presume that the tackifying resin of Tomoaki has a softening point of not lower than 110°C because products of identical composition cannot have mutually exclusive properties, see *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). With respect to the claimed weight ratio of APAO (A) to PP wax (C) of 100/50 to 100/100, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% APAO polymer, 5-44 wt% of a crystalline PP wax, which reads on said weight ratio (e.g. 50 wt% APAO and 25 wt% of PP wax = 100/50 weight ratio). Regarding, the claimed weight ratio of the APAO (A) to the tackifier resin (B) of 100/10 to 100/100, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% APAO and 1-20 wt% of the tackifier resin, which reads on said weight ratio (e.g. 50 wt% of APAO and 5 wt% of tackifier resin = 100/10 wt ratio).

It is noted that the primary reference of Holbrook discloses disadvantages of using solvent based or chemical adhesives in attaching trim cover assemblies to cushion pads (column 1 lines 21-27). Further, Holbrook discloses that conventional attachment methods to attach trim cover assemblies to cushion pads use large quantities of adhesive and long bonding cycle times

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to assure that a sufficient quantities of adhesive has migrated into the fabric material to obtain a suitable bond (column 1 lines 57-61). According to Holbrook "Because both the fabric material and the cushion material are heat sensitive, long bonding cycle times result in degradation of the fabric material and the cushion material, such as nap crush and loss of foam loft (column 1 lines 60-65). It is noted that the hot-melt adhesive of the secondary reference of Tomoaki has advantages such as high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time (page 9). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Holbrook, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

As to the claim requirement of the thickness of the hot melt layer (claim 5), it would have been obvious to choose a suitable thickness of the hot melt adhesive layer, motivated by the desire to provide sufficient quantity of the adhesive such that the adhesive provides proper bonding to the surface to which the fabric is bonded.

Regarding claim 6, the recitation of "not more than 30 weight % of a polyolefin" is interpreted as not having (i.e. zero wt%) polyolefin because the recitation "not more than 30 weight %" includes zero. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Holbrook, motivated by the desire to use a hot-melt adhesive that has high flexibility, low

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possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

With respect to claim 9 the weight ratio of APAO (A) to PP wax (C) of 100/50 to 100/80, as previously disclosed the hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer and 5-44 wt% of a crystalline polypropylene wax. Additionally, with respect to the weight ratio of APAO (A) to the tackifier resin (B) of 100/30 to 100/60, the hot-melt adhesive of Tomoaki comprises 50-90 wt% amorphous polyolefin polymer and 1-20 wt% of tackifier resin (e.g. 50 wt% APAO and 20 wt% of tackifier resin = 100/40 wt ratio). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the hot-melt adhesive of Tomoaki in the invention of Holbrook, motivated by the desire to use a hot-melt adhesive that has high flexibility, low possible coating temperature, low coating viscosity, high tack generation temperature, high blocking resistance, and short open time.

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7. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holbrook et al. (US 5,858,159) in view of Tomoaki et al. (JP 2000-226561) (English translation previously provided by the Examiner) as applied to claims 1 and 8 above, and further in view of Bohm et al. (US 2003/0008137A1).

Claims 3 and 11 require surface layer material/adhesion or thermal fusion/polyolefin foam/hot-melt. It is noted that Holbrook is silent with respect to disclosing claims 3 and 11. However, Bohm discloses self-adhesive protective article for painted automobile parts. The adhesive tape of Bohm includes a backing material in the film form which can be foamed and whose outer side is laminated with a layer of knitted fabric (surface layer) (abstract and 0018). The lamination of the fabric with the foam is performed using an adhesive (0031). Further, as a film forming (foam) material, Bohm discloses various polyolefin resins (0016). The aforementioned disclosure of Bohm is interpreted as the structure of the Bohm's film is knitted fabric/adhesive/polyolefin foam. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the structure of the Bohm's film in the invention of Holbrook as modified by Tomoaki, motivated by the desire to enhance the strength of the trim cover assembly of Holbrook as modified by Tomoaki.

Response to Arguments

8. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Terrel Morris/

Terrel Morris

Supervisory Patent Examiner

Group Art Unit 1794